

1 ~~51.~~ (Amended) [The method claimed in claim 1, wherein said step of
2 preprocessing said data at said central broadcast server, further comprising the step
3 of:] A method for transmitting data to selected remote computing devices,
4 comprising the steps of:

5 transmitting data from an information source to a central broadcast server;
6 preprocessing said data at said central broadcast server, further comprising
7 the step of:

8 providing data to servers in said central broadcast server;

9 parsing said data with parsers corresponding to said servers;

10 transmitting said data to [said] a content manager for determining how
11 said data is handled;

12 transmitting said data from said content manager to [said] an
13 information gateway for building data blocks and assigning addresses to said data
14 block; and

15 transmitting said data blocks from said information gateway to [said]
16 a transmission gateway for preparing said data block for transmission to [said]
17 receivers;

18 transmitting preprocessed data to receivers communicating with said
19 computing devices; and

20 instantaneously notifying said computing devices of receipt of said
21 preprocessed data whether said computing devices are on or off.

A2 Sub B1
1 53. (Amended) The method claimed in claim [54] 37, further comprising
2 the step of:
3 utilizing a remote control interface for controlling said viewers.

Please add new claims 82-155 as follows:

1 --82. The method claimed in claim 8, wherein said single function comprises a
2 single click on said computing device.

1 83. The method claimed in claim 82, wherein said computing device comprises
2 a computer.

1 ³84. The method claimed in claim ¹51, wherein said step of transmitting
2 preprocessed data to remote receivers communicating with said computing devices,
3 further comprises the step of:
4 wirelessly transmitting said preprocessed data to remote receivers.

1 ³85. The method claimed in claim ³84, wherein said step of wirelessly transmitting
2 said preprocessed data to remote receivers further comprises the step of:
3 transmitting said preprocessed data utilizing a paging network.

1 ⁵86. The method claimed in claim ³84, wherein said step of wirelessly transmitting
2 said preprocessed data to remote receivers further comprises the step of:
3 transmitting said preprocessed data utilizing a Vertical Blanking Interval.

1 ⁶87. The method claimed in claim ³84, wherein said step of wirelessly transmitting
2 said preprocessed data to remote receivers further comprises the step of:
3 transmitting said preprocessed data utilizing a satellite system.

1 ⁸88. The method claimed in claim ¹51, wherein said step of transmitting
2 preprocessed data to remote receivers communicating with said computing devices,
3 further comprises the step of:

4 transmitting said preprocessed data to remote receivers by wired
5 transmission.

1 ⁹~~89~~. The method claimed in claim ¹~~51~~, wherein said step of preprocessing data
2 at said central broadcast server, further comprises the step of:
3 attaching to said preprocessed data an Internet address location of said
4 preprocessed data for providing to said user an automatic connection back to
5 said information source for obtaining further information related to said
6 preprocessed data.

1 ¹⁰~~90~~. The method claimed in claim ⁹~~89~~, wherein said Internet address location is
2 a Uniform Resource Locator.

1 ¹¹~~91~~. The method claimed in claim ⁹~~89~~, wherein said step of attaching to said
2 preprocessed data an Internet address location of said preprocessed data for
3 providing to said user an automatic connection back to said information source
4 for obtaining further information related to said preprocessed data, further
5 comprises the step of:
6 providing an automatic connection back to said information source
7 through an user activating a single function on said computing device.

1 ¹⁰~~92~~. The method claimed in claim ¹¹~~91~~, wherein said single function comprises a
2 single click on said computing device.

1 ¹³ 93. The method claimed in claim ⁹ 89, wherein said connection back to said
2 information source for obtaining further information related to said preprocessed
3 data is an automated wired connection.

1 ¹⁴ 94. The method claimed in claim ⁹ 89, wherein said connection back to said
2 information source for obtaining further information related to said preprocessed
3 data is an automated wireless connection.

1 ¹⁵ 95. The method claimed in claim ⁹ 89, wherein said step of attaching to said
2 preprocessed data an Internet address location of said preprocessed data for
3 providing to said user an automatic connection back to said information source
4 for obtaining further information related to said preprocessed data, further
5 comprises the step of:
6 determining at said central broadcast server said Internet address location
7 from said information source.

1 ¹⁶ 96. The method claimed in claim ⁹ 89, wherein said step of attaching to said
2 preprocessed data an Internet address location of said preprocessed data for
3 providing to said user an automatic connection back to said information source
4 for obtaining further information related to said preprocessed data, further
5 comprises the step of:
6 attaching said Internet address location to said preprocessed data.

1 ¹⁷ 97. The method claimed in claim ⁹ 89, wherein said step of attaching to said
2 preprocessed data an Internet address location of said preprocessed data for
3 providing to said user an automatic connection back to said information source
4 for obtaining further information related to said preprocessed data, further
5 comprises the step of:

6 transmitting said Internet address location with said preprocessed data to
7 said computing device.

1 ¹⁸~~98~~. The method claimed in claim ⁹~~89~~, further comprising the step of:
2 extracting said Internet address location from said preprocessed data at
3 said computing device.

1 ¹⁹~~99~~. The method claimed in claim ⁹~~89~~, further comprising the step of:
2 displaying said Internet address location with said preprocessed data to
3 said user such that said user can with a single click on said Internet address
4 location to obtain additional information from said information source.

1 ²⁰~~100~~. The method claimed in claim ⁹~~89~~, further comprising the step of:
2 launching an Internet browser and passing said Internet address location
3 to said browser for automatic connection back to said information source.

1 ²²~~101~~. The method claimed in claim ¹~~51~~, wherein said step of instantaneously
2 notifying said computing devices of receipt of said preprocessed data whether
3 said computing devices are on or off, further comprises the step of:
4 providing at least one alert which when activated allows display of data.

1 ²³~~102~~. The method claimed in claim ²²~~101~~, wherein said at least one alert
2 comprises a visual alert.

1 ²⁴~~103~~. The method claimed in claim ²²~~101~~, wherein said at least one alert
2 comprises an audio alert.

26
1 104. The method claimed in claim 51, wherein said step of instantaneously
2 notifying said computing devices of receipt of said preprocessed data whether
3 said computing devices are on or off, further comprises the step of:
4 providing a dockable user interface alert panel on a display
5 communicating with computing device for providing alerts to said user, wherein
6 said alert panel is dockable on top of other applications.

27 26
1 105. The method claimed in claim 104, wherein said step of providing a
2 dockable user interface alert panel on a display communicating with computing
3 device for providing alerts to said user, further comprises the step of:
4 displaying fly-in graphics and icon buttons to alert said user that new data
5 has been received by said computing device.

3
A 25 22
1 106. The method claimed in claim 101, wherein said at least one alert is related
2 to type of information present at computing device.

28 1
1 107. The method claimed in claim 51, wherein said step of preprocessing said
2 data at said central broadcast server further comprises the step of:
3 deriving redundant data packets for transmission to said user.

29 28
1 108. The method claimed in claim 107, wherein said step of deriving redundant
2 data packets for transmission to said user further comprises the step of:
3 parceling a data block into at least one incoming message.

HP 12-1-99 30 29
1 109. The method claimed in claim 108, wherein said step of deriving redundant
2 data packets for transmission to said user further comprises the step of:
3 parceling said messages into k information packets.

31 30
1 ~~110~~. The method claimed in claim ~~109~~, wherein said step of deriving redundant
2 data packets for transmission to said user further comprises the step of:
3 selecting a number of parity-check packets p.

32 31
1 ~~111~~. The method claimed in claim ~~110~~, wherein said step of deriving redundant
2 data packets for transmission to said user further comprises the step of:
3 encoding column-wise with a modified Reed-Solomon code for generating
4 parity-check packets.

33 32
1 ~~112~~. The method claimed in claim ~~111~~, wherein said Reed-Solomon code is
2 defined in accordance with:

3 P
$$g(x) = \prod_{i=1}^P (x + a^i)$$

5 I=1

34 32
1 ~~113~~. The method claimed in claim ~~111~~, wherein said step of deriving redundant
2 data packets for transmission to said user further comprises the step of:
3 parceling said data packets into code words for transmission to said user.

38 28
1 ~~114~~. The method claimed in claim ~~107~~, wherein said data packets include
2 information packets and parity-check packets.

36 34
1 ~~115~~. The method claimed in claim ~~113~~, wherein said step of deriving redundant
2 data packets for transmission to said user further comprises the steps of:
3 performing error correction and detection on said code words after said
4 data packets have been parceled.

36 34
1 ~~116~~. The method claimed in claim ~~113~~, further comprising the step of:

2 assembling a data block from said code words.

1 ³⁷~~117~~. The method claimed in claim ³⁶~~116~~, wherein said step of assembling a data
2 block from said code words further comprises the step of:
3 counting the number of code words which have errors;
4 determining whether each packet has any errors;
5 saving packets without error;
6 discarding packets with at least one error; and
7 assembling a message when the required number of packets has been
8 received.

3
A
1 ³⁹~~118~~. The method claimed in claim ¹~~117~~, wherein said step of preprocessing said
2 data at said central broadcast server further comprises the step of:
3 combining Huffman compression and the dictionary-based compression
4 based algorithms.

1 ⁴⁰~~119~~. The method claimed in claim ³⁹~~118~~, wherein said step of combining
2 Huffman compression and the dictionary-based compression based algorithms
3 further comprises the steps of:
4 scanning input texts;
5 searching for next item previously seen text;
6 searching for next item in a static Huffman dictionary; and
7 choosing said search method which produces a better result for
8 compression.

1 ⁴¹~~120~~. The method claimed in claim ⁴⁰~~119~~, further comprising the step of:
2 decompressing said compressed data.

42
1 ~~121~~. The method claimed in claim ~~51~~, wherein said step of preprocessing said
2 data at said central broadcast server further comprises the step of:
3 utilizing a differencing algorithm for compressing said coded data, thereby
4 significantly reducing the number of bytes sent with each transmission.

43
1 ~~122~~. The method claimed in claim ~~51~~, wherein said step of preprocessing data
2 at said central broadcast server, further comprises the step of:
3 processing data in accordance with feed type from said information
4 source.

44 43
1 ~~123~~. The method claimed in claim ~~122~~, wherein said feed type comprises
2 binary type feeds.

3
A 45 43
1 ~~124~~. The method claimed in claim ~~122~~, wherein said feed type comprises
2 common user information type feeds.

46 43
1 ~~125~~. The method claimed in claim ~~122~~, wherein said feed type comprises feeds
2 for modifying registry keys which control processing of data.

47 43
1 ~~126~~. The method claimed in claim ~~122~~, wherein said step of processing data in
2 accordance with feed type from said information source, further comprises the
3 step of:
4 using tags to differentiate types of information.

48
1 ~~127~~. The method claimed in claim ~~51~~, wherein said step of instantaneously
2 notifying said computing devices of receipt of said preprocessed data whether
3 said computing devices are on or off, further comprises the step of:

4 instantaneously alerting said user to personal alerts through the use of
5 sound, graphics, bit maps or video, wherein said user can instantaneously
6 access information.

~~5649~~
1 ~~128~~. The method claimed in claim ~~51~~¹, wherein said step of preprocessing data
2 at said central broadcast server, further comprises the step of:
3 encoding said data with information relating to message parameters for
4 filtering.

~~50~~
1 ~~129~~. The method claimed in claim ~~51~~¹, wherein said step of instantaneously
2 notifying said computing devices of receipt of said preprocessed data whether
3 said computing devices are on or off, further comprises the steps of:
4 monitoring said transmissions utilizing multiple viewers;
5 filtering said transmitted preprocessed data;
6 post processing said preprocessed data; and
7 notifying said user instantaneously of receipt of filtered postprocessed
8 data.

~~51~~
1 ~~130~~. The method claimed in claim ~~129~~⁵⁰, wherein said step of filtering said
2 transmitted preprocessed data further comprises the step of:
3 filtering said transmitted preprocessed data in accordance with
4 preferences set by said user.

~~52~~
1 ~~131~~. The method claimed in claim ~~130~~⁵¹, wherein said step of filtering said
2 transmitted preprocessed data in accordance with preferences set by said user,
3 further comprises the step of:
4 setting said preferences with respect to sound, video and animation.

53 60
1 ~~132~~. The method claimed in claim ~~129~~, wherein said step of filtering said
2 transmitted preprocessed data further comprises the step of:
3 filtering said preprocessed data in accordance with virtual addresses.

54 60
1 ~~133~~. The method claimed in claim ~~129~~, wherein said step of filtering said
2 transmitted preprocessed data further comprises the step of:
3 filtering said preprocessed data in accordance with physical addresses.

60 60
1 ~~134~~. The method claimed in claim ~~129~~, further comprising the step of:
2 controlling said viewers from said central broadcast server.

3
A 61 1
1 ~~135~~. The method claimed in claim ~~51~~, further comprising the step of:
2 activating said preprocessed data at a scheduled time.

62 1
1 ~~136~~. The method claimed in claim ~~51~~, further comprising the step of:
2 modifying said preprocessed data instantaneously and wirelessly.

63 66
1 ~~137~~. The method claimed in claim ~~136~~, wherein said step of modifying said
2 preprocessed data instantaneously and wirelessly, further comprises the step of:
3 activating services wirelessly through activation codes which enable or
4 disable services.

66 65
1 ~~138~~. The method claimed in claim ~~134~~, wherein said step of controlling said
2 viewers from said central broadcast server, further comprises the step of:
3 adding viewers from said central broadcast server.

67 66
1 ~~139~~. The method claimed in claim ~~134~~, wherein said step of controlling said
2 viewers from said central broadcast server, further comprises the step of:
3 removing viewers from said central broadcast server.

4
1 ⁶⁴140. The method claimed in claim ¹51, further comprising the step of:
2 postprocessing said preprocessed data.

1 ⁶⁵141. The method claimed in claim ⁶⁴140, wherein said step of postprocessing
2 said preprocessed data further comprises the step of:
3 recombining, decoding and decompressing said preprocessed data.

1 ⁶⁶142. The method claimed in claim ¹51, wherein said information source may be
2 an Internet access provider providing data feeds.

1 ⁶⁷143. The method claimed in claim ¹51, wherein said information source may be
2 an on-line service provider providing data feeds.

1 ⁶⁸144. The method claimed in claim ¹51, wherein said step of transmitting said
2 data from said content manager to said information gateway for building data
3 blocks and assigning addresses to said data block, further comprises the step of:
4 building data blocks and assigning addresses to said data block based on
5 information in a subscriber database.

1 ⁶⁹145. The method claimed in claim ⁶⁰129, further comprising the step of:
2 utilizing a remote control interface for controlling said viewers.

1 ⁶⁹146. The method claimed in claim ⁶⁸145, wherein said step of utilizing a remote
2 control interface for controlling said viewers further comprises the step of:
3 launching said remote control interface through a user interface alert
4 panel.

1 ⁶⁰147. The method claimed in claim ⁶⁰129, further comprising the step of:

2 storing entries in a viewer server connected to said viewer; and
3 providing filtering means for filtering particular types of messages a viewer
4 can look at.

1 ⁶⁹~~148~~. The method claimed in claim ¹~~51~~, further comprising the step of:
2 displaying contextual graphics on said computing device to show data in a
3 predefined format.

1 ⁷⁰~~149~~. The method claimed in claim ⁶⁹~~148~~, wherein said predefined format is a
2 scoreboard.

3
A 1 ⁷¹~~150~~. The method claimed in claim ¹~~51~~, wherein said step of preprocessing data
2 at said central broadcast server, further comprises the step of:
3 attaching to said preprocessed data an Internet address location of said
4 preprocessed data for providing to said user a message that causes a process or
5 transaction on said computing device to occur.

1 ²¹~~151~~. The method claimed in claim ⁹~~89~~, wherein said Internet address is a
2 proprietary on-line addressing scheme.

1 ⁷~~152~~. The method claimed in claim ³~~84~~, wherein said step of wirelessly
2 transmitting said preprocessed data to remote receivers further comprises the
3 step of:
4 transmitting said preprocessed data utilizing a FM subcarrier, digital,
5 analog, cellular, GSM or PCS carrier.

1 ⁷²~~153~~. The method claimed in claim ⁶~~51~~, wherein said step of preprocessing said
2 data at said central broadcast server, further comprises the step of:
3 sending said data on groups of pooled capcodes.

23
1 154. The method claimed in claim 153, wherein said step of sending said data
2 on groups of pooled capcodes, further comprises the step of:
3 multiplexing data over multiple capcodes to be reassembled at said user
4 as if data were being sent over a single capcode.

74
1 155. The method claimed in claim 51, wherein said step of preprocessing said
2 data at said central broadcast server, further comprises the step of:
3 assigning data packets to a group of capcodes;
4 transmitting said data over a paging network using said group of
5 capcodes;
6 receiving packets at said user on said group of capcodes; and
7 combining said packets from group of capcodes into one data message.

-----ADDITIONAL "EMBEDDED URL & ALERT" CLAIMS-----

3
A
1 156. A method for transmitting data to a plurality of receivers, comprising the
2 steps of:
3 generating data including an Internet address location; and
4 broadcasting said data including said Internet address location to a user in
5 communication with one of said plurality of receivers, wherein said Internet
6 address location is not broadcast in response to a request for said Internet
7 address location by said user.

1 157. The method claimed in claim 156, further comprising the step of:
2 providing said user with a direct connection to said location identified by
3 said Internet address location.

1 158. The method claimed in claim 157, further comprising the step of:

2 providing notification of said Internet address location to said user in
3 communication with one of said plurality of receivers.

1 159. The method claimed in claim 156, wherein said Internet address location
2 is a Uniform Resource Locator.

1 160. The method claimed in claim 157, wherein said step of providing said user
2 with a direct connection to said location identified by said Internet address
3 location, further comprises the step of:

4 providing a connection to said location through said user activating a
5 single function on said remote device.

3
A 1 161. The method claimed in claim 160, wherein said single function comprises
2 a single click on said remote device.

1 162. The method claimed in claim 157, wherein said step of providing said user
2 with a direct connection to said location identified by said Internet address
3 location, further comprises the step of:

4 providing a wireless connection to said location for said user to obtain
5 further information.

1 163. The method claimed in claim 157, wherein said step of providing said user
2 with a direct connection to said location identified by said Internet address
3 location, further comprises the step of:

4 providing a wired connection to said location for obtaining further
5 information.

1 164. The method claimed in claim 156, wherein said step of generating data
2 including an Internet address location, further comprises the step of:

3 determining at a server said Internet address location from a source
4 providing information to said server.

1 165. The method claimed in claim 164, wherein said step of generating data
2 including an Internet address location, further comprises the step of:
3 attaching said Internet address location to said data.

1 166. The method claimed in claim 165, wherein said step of attaching said
2 Internet address location to said data, further comprises the step of:
3 embedding said Internet address location within said data.

3
A 1 167. The method claimed in claim 156, further comprising the step of:
2 extracting said Internet address location from said data at said plurality of
3 remote devices.

1 168. The method claimed in claim 158, wherein said step of providing
2 notification of said Internet address location to said user in communication with
3 one of said plurality of receivers, further comprises the step of:
4 displaying said Internet address location to said user on one of said
5 plurality of receivers.

1 169. The method claimed in claim 168, wherein said step of displaying said
2 Internet address location to said user on one of said plurality of receivers, further
3 comprises the step of:
4 utilizing a single click on said Internet address location to obtain additional
5 information from said information source.

1 170. The method claimed in claim 157, wherein said step of providing said user
2 with a direct connection to said location identified by said Internet address
3 location, further comprises the step of:

4 launching an Internet browser and passing said Internet address location
5 to said browser for automatic connection back to said location.

1 171. The method claimed in claim 156, wherein said Internet address location
2 corresponds to a location on the World Wide Web.

1 172. The method claimed in claim 158, wherein said step of providing
2 notification of said Internet address location to said user in communication with
3 one of said plurality of receivers, further comprises the step of:

4 providing an alert to said user in communication with said at least one
5 remote device.

1 173. The method claimed in claim 172, further comprising the step of:
2 activating said alert to obtain additional information from an information
3 source.

1 174. The method claimed in claim 156, wherein said at least one remote device
2 comprises a paging device.

1 175. The method claimed in claim 172, wherein said alert comprises a visual
2 alert.

1 176. The method claimed in claim 175, wherein said visual alert comprises the
2 text of the Internet address location.